

1. A method of molding flexible circuit elements,  
comprising:

providing a mold section having a molding compound cull  
block, a first mold runner cavity connected to said molding  
compound cull block, a stiffener cavity connected to said  
first mold runner cavity, a number of circuit cavities, a  
number of second mold runner cavities connected to said  
first mold runner cavity wherein each of said second mold  
runner cavities is connected to one of said circuit  
cavities;

providing a flexible tape;

providing a number of circuit die attached to said  
flexible tape;

providing a molding compound;

placing said mold section on said flexible tape  
covering said circuit die;

placing said molding compound in said molding compound  
cull block of said mold section;

flowing said molding compound through said first mold  
runner cavity and said second mold runner cavities into said  
circuit cavities, covering said circuit die, and said  
stiffener cavity;

curing said molding compound thereby forming flexible  
circuit elements and stiffeners on said flexible tape; and

removing said mold section.

10043603-01.1402

2. The method of claim 1 wherein said molding compound is a heat cured material.

3. The method of claim 1 wherein said molding compound is a compacted powder in a semicured state.

4. The method of claim 1 wherein said flexible tape is polyimide tape.

5. The method of claim 1 wherein said flexible tape is formed of a flexible material.

6. The method of claim 1 wherein said curing said molding compound uses time and temperature.

7. The method of claim 1 wherein said flexible tape has a first surface, a second surface, via holes between said first surface and said second surface, and further comprises electrical traces formed on said first surface or said second surface.

8. The method of claim 1, wherein said flexible tape has a first surface, a second surface, and via holes between said first surface and said second surface and further comprises electrical traces formed on said first surface and said second surface.

10043603-011402

9. The method of claim 1 wherein no additional means of stiffening said flexible tape is used.

10. The method of ~~claim~~ <sup>a</sup> 1 further comprising separating said flexible circuit elements, including said circuit die, into individual said circuit elements and removing said first mold runners, said second mold runners, and said stiffeners from each of said flexible circuit elements.

11. A molded flexible circuit assembly, comprising:

a flexible tape;

a number of circuit die attached to said flexible tape;

a number of encapsulation units formed of molded encapsulation material, wherein each of said circuit die is covered by one of said encapsulation units; and

a number of molded stiffeners formed of said molded encapsulation material.

12. The molded flexible circuit assembly of claim 11 wherein said molded encapsulation material is epoxy.

13. The molded flexible circuit assembly of claim 11 wherein said flexible tape is polyimide tape.

204770 "E0994001  
10043603" 011402  
5

14. The molded flexible circuit assembly of claim 11 wherein said flexible tape has a first surface, a second surface, via holes between said first surface and said second surface, and electrical traces formed on said first surface or said second surface.

15. The molded flexible circuit assembly of claim 11 wherein said flexible tape has a first surface, a second surface, via holes between said first surface and said second surface, and electrical traces formed on said first surface and said second surface.

16. The molded flexible circuit assembly of claim 11 wherein no additional means of stiffening said flexible tape is used.

10043603-01402